

Adding and Subtracting With Significant Digits

- **Precision Rule** = when adding or subtracting measured values, the answer will have the same number of decimal places (numbers after decimal) as the measured value with the fewest decimal places.

Examples:

1) $24.6866 \text{ m} \rightarrow 4 \text{ decimal places}$
 $2.343 \text{ m} \rightarrow 3 \text{ decimal places}$
 $+ 3.21 \text{ m} \rightarrow 2 \text{ decimal places}$

** answer can only have 2 decimal places

30.2396

30.24 m

~~20.24~~ (2 decimal places)

2) $6.201 \text{ cm} \rightarrow 3 \text{ decimal places}$
 $7.4 \text{ cm} \rightarrow 1 \text{ decimal place}$
 $+ 0.68 \text{ cm} \rightarrow 2 \text{ decimal places}$
 14.281 cm

14.281

14.3 cm

14.3 cm (1 decimal place)

3) $6.002 \text{ g} + 18 \text{ g} + 5.8 \text{ g} = 29.802 \text{ g}$
 $= 30 \text{ g}$

4) $0.00047 \text{ mm} + 972.83 \text{ mm} + 1.01 \text{ mm} =$
 $973.84047 \rightarrow 973.84$

5) $17.5 \text{ ml} + 95 \text{ ml} + 8.25 \text{ ml} = 120.75 \text{ ml}$
 121 ml

6) $32.1 \text{ m} + 960 \text{ m} + 20.02 \text{ m} =$
 $1012.12 \quad 1012 \text{ m}$

7) $0.2 \text{ cm} + 23.91 \text{ cm} + 0.62 \text{ cm} =$

8) $13.63 \text{ hg} - 0.5 \text{ hg} =$

9) $35.15 \text{ g} - 18 \text{ g} =$

10) $7.52 \text{ L} + 8.678 \text{ L} + 0.8 \text{ L} =$